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Socioeconomic Monitoring Report No. 2 Third Quarter 1982

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WHITE RIVER SHALE PROJECT

SOCIOECONOMIC IMPACT MONITORING REPORT NO. 2

THIRD QUARTER 1982

White River Shale Oil Corporation
October 1, 1982

A/P Associates
Salt Lake City, Utah

SUMMARY
WHITE RIVER SHALE PROJECT WORK FORCE
THIRD QUARTER 1982

1. Total Employees

Temporary	49
Permanent	8
	57

2. Marital Status

Single	15
Married	42
	57
Single Status	38

3. Work Force Origin

Local	16
Nonlocal	41
	57

4. Location of Residence While on the Project

Vernal	28
Maeser	1
Jensen	4
Naples	2
Rangely	3
Dinosaur	5
On-Site	14
	57

5. Location of Permanent Residence

Local	
Vernal	11
Naples	2
Maeser	0
Jensen	1
Dinosaur	0
Rangely	2
	16

Nonlocal	
Utah	24
Wyoming	1
Idaho	1
Arizona	2
California	4
Colorado	4
Oregon	1
Washington	1
No Response	3
	41

6. Type of Residence

Single Family	10
Motel/Hotel	0
Condominium/ Apartment	6
Other	0
Recreation Vehicle	31
Mobile Home	10
	57

7. Employee's Children

(Age)	Local	Nonlocal
0-2	3	4
3-5	1	4
6-11	7	5
12-17	5	1
	16	14

8. Job Title

Boilermaker	0
Millwright	0
Carpenter	0
Miner	1
Cement Finisher	0
Operator	16
Electrician	0
Painter	0
Insulator	0
Pipefitter	0
Iron Worker	0
Supervisor	3
Laborer	14
Truck Driver	4
Maintenance	0
Welder	0
Admin./Security	4
Other	14
No Response	1
	57

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PREFACE

The White River Shale Oil Corporation (WRSOC) was formed in 1974 by Phillips Petroleum Company, Sohio Shale Oil Company, and Sunoco Energy Development Company to assist these three owner companies in developing the Federal prototype oil shale lease tracts Ua and Ub. The two tracts are located in Uintah County, Utah approximatey 50 miles southeast of Vernal, Utah (Figure 1). The right to develop the tracts was obtained in June 1974 from the U.S. Department of Interior for a bonus bid of $120.7 million. Covering a total of 10,240 acres, the tracts have recoverable reserves estimated at over 700 million barrels of oil.

Tract development was delayed from 1977 to 1982 because of land title-related questions. With the lifting of the court-ordered injunction and the approval of development plans by the Federal government, on-site preparation work began in April 1982. Site work will continue through 1982 in preparation for beginning development of a large room-and-pillar oil shale mine. This mine, as well as underground rock crushers and the above-ground processing facilities, are scheduled to be developed in three phases. Operation of the Phase I modular facility is planned to occur in 1988-89 (Figure 2). This would involve a 27,000 ton per day mine and shale oil production of 8,000 to 16,000 barrels per day. Following successful operation of the Phase I facility, commercial development would begin in 1989, leading to full production of 100,000 barrels per day of upgraded shale oil in 1996. At this level, the mine would produce 176,000 tons per day of oil shale.

As a responsible corporate citizen, it is the intention of the White River Shale Oil Corporation to cooperate with and assist public and private organizations in anticipating and mitigating socioeconomic impacts related to the White River Shale Project (WRSP). In keeping with this policy, WRSOC has established a process for monitoring the shale project's socioeconomic impacts in Utah and western Colorado. The information obtained through this monitoring process constitutes a major component of the WRSP impact mitigation program.

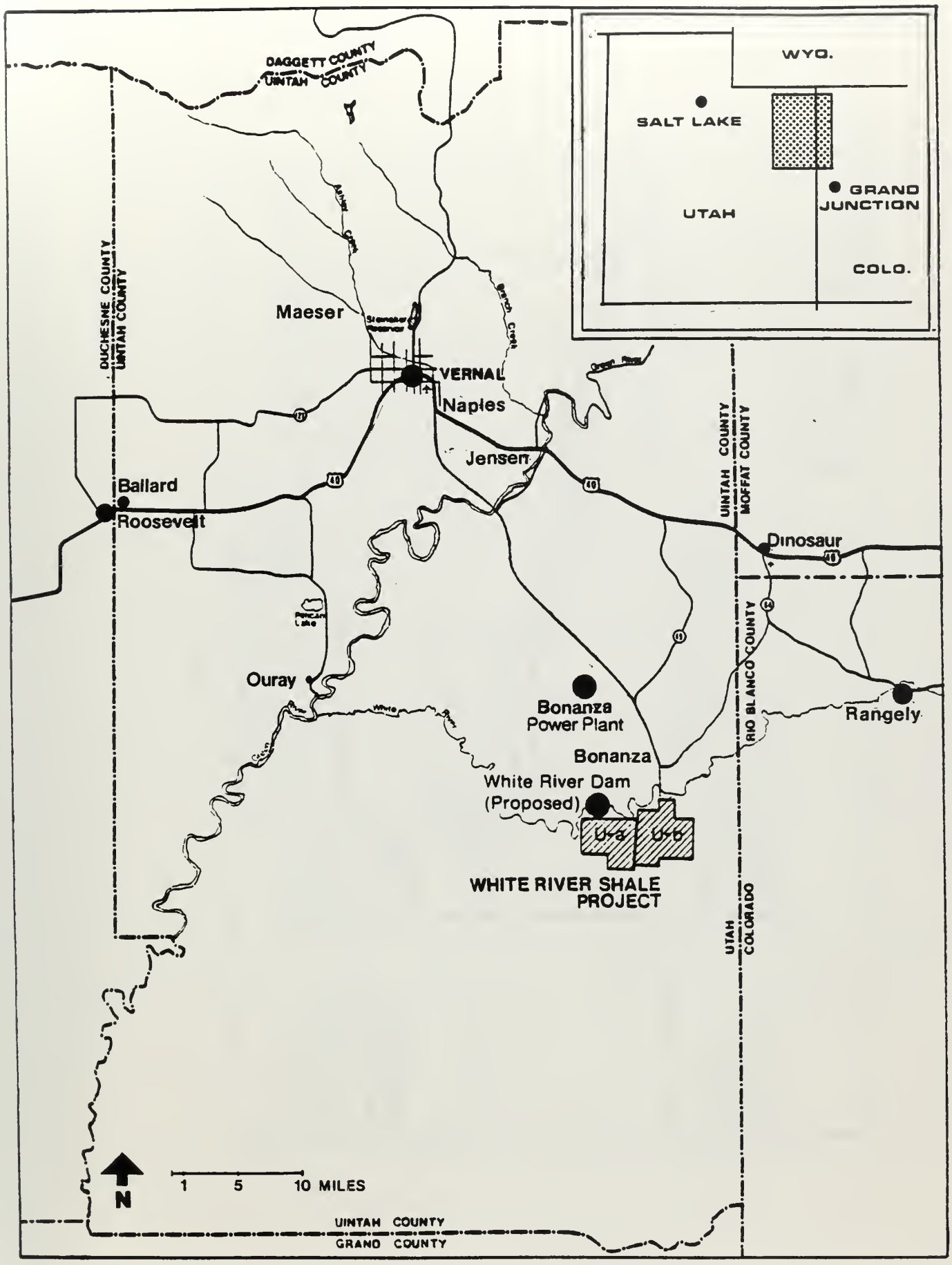
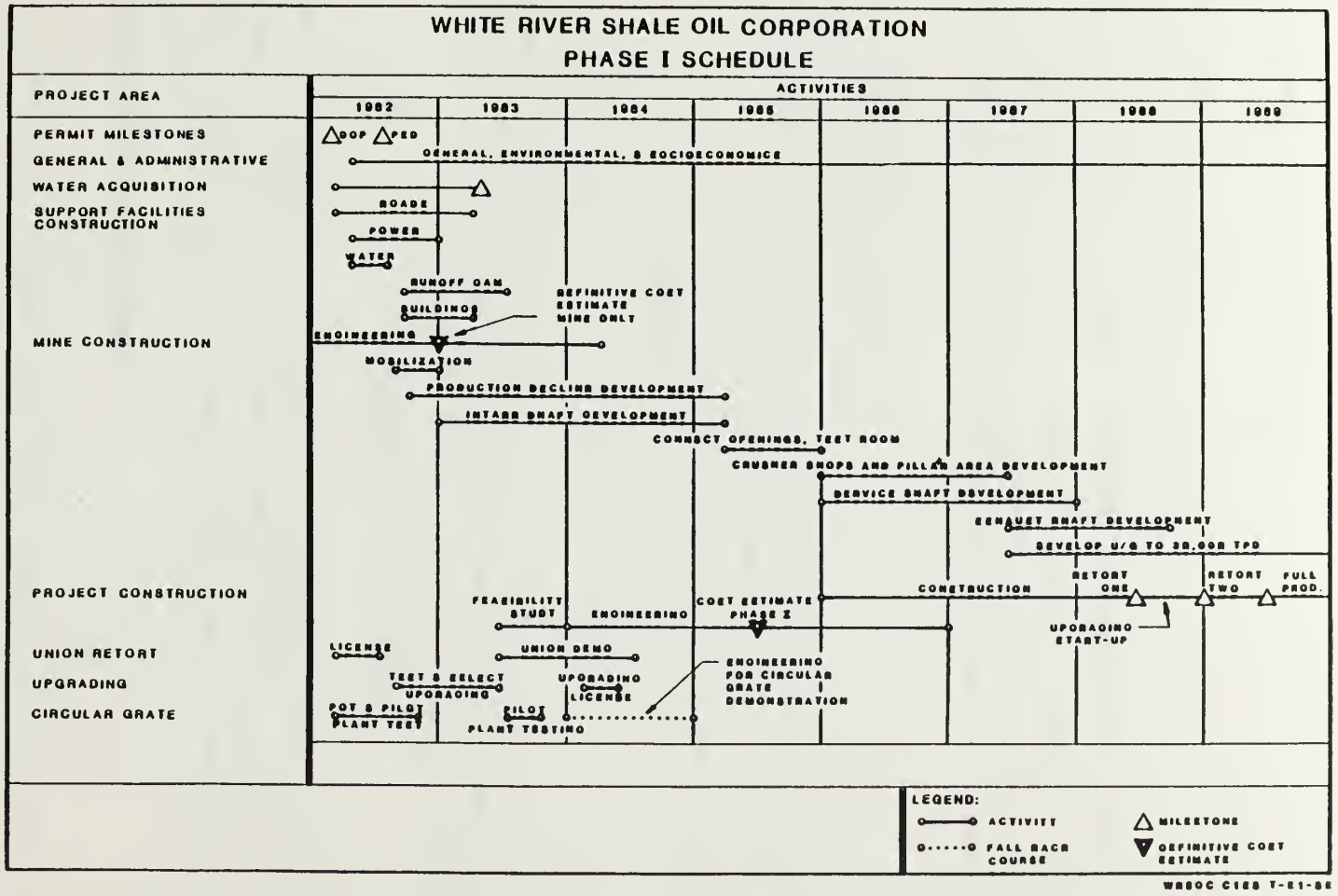


Fig. 1. White River Shale Project Impact Region

FIG. 2


WHITE RIVER SHALE OIL CORPORATION
PHASE I SCHEDULE
PROJECT AREA
ACTIVITIES
1982
1983
1984
1985
1986
1987
1988
1989
PERMIT MILESTONES
DOP
PEO
GENERAL & ADMINISTRATIVE
GENERAL, ENVIRONMENTAL, & SOCIOECONOMICS
WATER ACQUISITION
SUPPORT FACILITIES CONSTRUCTION
ROADS
POWER
WATER
RUNOFF DAM
BUILDINGS
DEFINITIVE COST ESTIMATE MINE ONLY
MINE CONSTRUCTION
ENGINEERING
MOBILIZATION
PRODUCTION DECLINE DEVELOPMENT
INTAKE SHAFT DEVELOPMENT
CONNECT OPENINGS, TEST ROOM
CRUSHER SHOPS AND PILLAR AREA DEVELOPMENT
SERVICE SHAFT DEVELOPMENT
EXHAUST SHAFT DEVELOPMENT
DEVELOP U/G TO 38,000 TPD
RETORT ONE
RETORT TWO
FULL PROD.
PROJECT CONSTRUCTION
FEASIBILITY STUDY
ENGINEERING
COST ESTIMATE PHASE II
CONSTRUCTION
UPGRADING START-UP
UNION RETORT
LICENSE
UNION DEMO
UPGRADING
TEST & SELECT UPGRADING
UPGRADING LICENSE
CIRCULAR GRATE
POT & PILOT PLANT TEST
PILOT PLANT TESTING
ENGINEERING FOR CIRCULAR GRATE DEMONSTRATION
LEGEND:
ACTIVITY
MILESTONE
FALL BACK COURSE
DEFINITIVE COST ESTIMATE
WRSOC C1ES T-E1-8E

I. QUARTERLY SUMMARY

The period July 1 - October 1 saw the continuation of initial site work on the White River Shale Project. This was accompanied by a modest increase in the project work force. These developments are described below.

A. Developments at the Project Site

During the third quarter of 1980, site work continued in preparation for construction of the oil shale mine and related facilities. Ralph M. Parsons Company is the prime engineering and construction contractor for Phase I of the project and provides field supervision of subcontractors. The following tasks were undertaken this quarter:

1. Site and Road Work at Plant Site
   Contractor: LAYS Rock Products
   Description of Work: Preliminary grading for construction of above-ground mine facilities in plant site area. Continued on-site construction of paved access road to plant area (Figure 3).

2. Construction of Mine Services Building
   Contractor: Teel Construction
   Description of Work: Laying of foundation and utilities and erection and finishing of 27,000 square foot building at plant site. To be completed by April 1983.

In the fourth quarter of 1982, work will commence on the mine shaft decline and related surface and subsurface structures. Construction of the mine services building will also continue. In addition, power lines will be installed to the plant site area (Figure 2).

B. Actual vs. Projected WRSP Employment

As of October 1, 57 persons were employed on the White River Shale Project and living in northeastern Utah - northwestern Colorado. This is generally consistent with a schedule announced earlier for WRSP's employment to reach approximately 140 by the end of 1982 (Figures 4 and 5). However, in order to continue meeting this work force

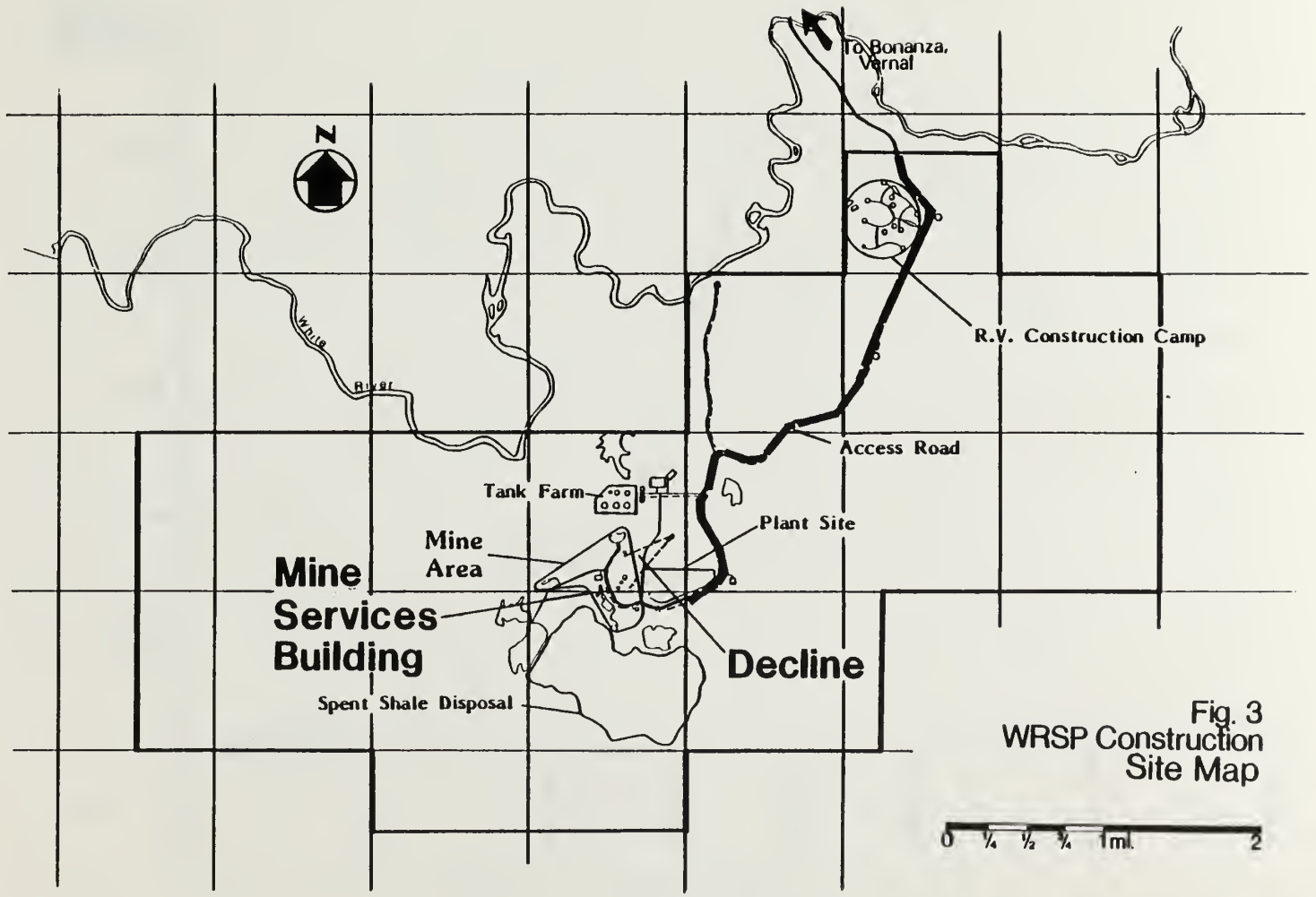


Fig. 3
WRSP Construction Site Map

FIG. 4

PROJECTED WRSP WORK FORCE
1982-2000

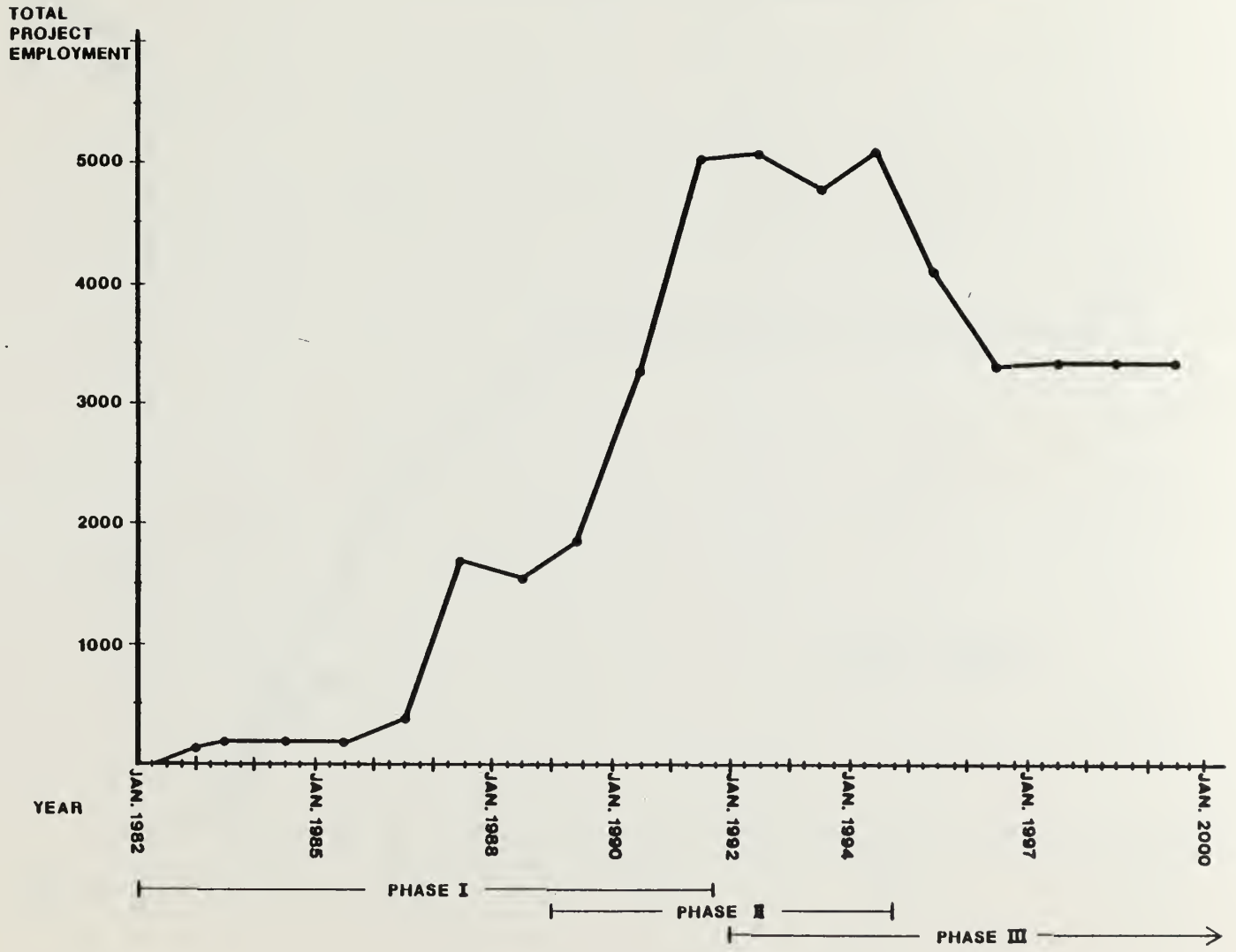
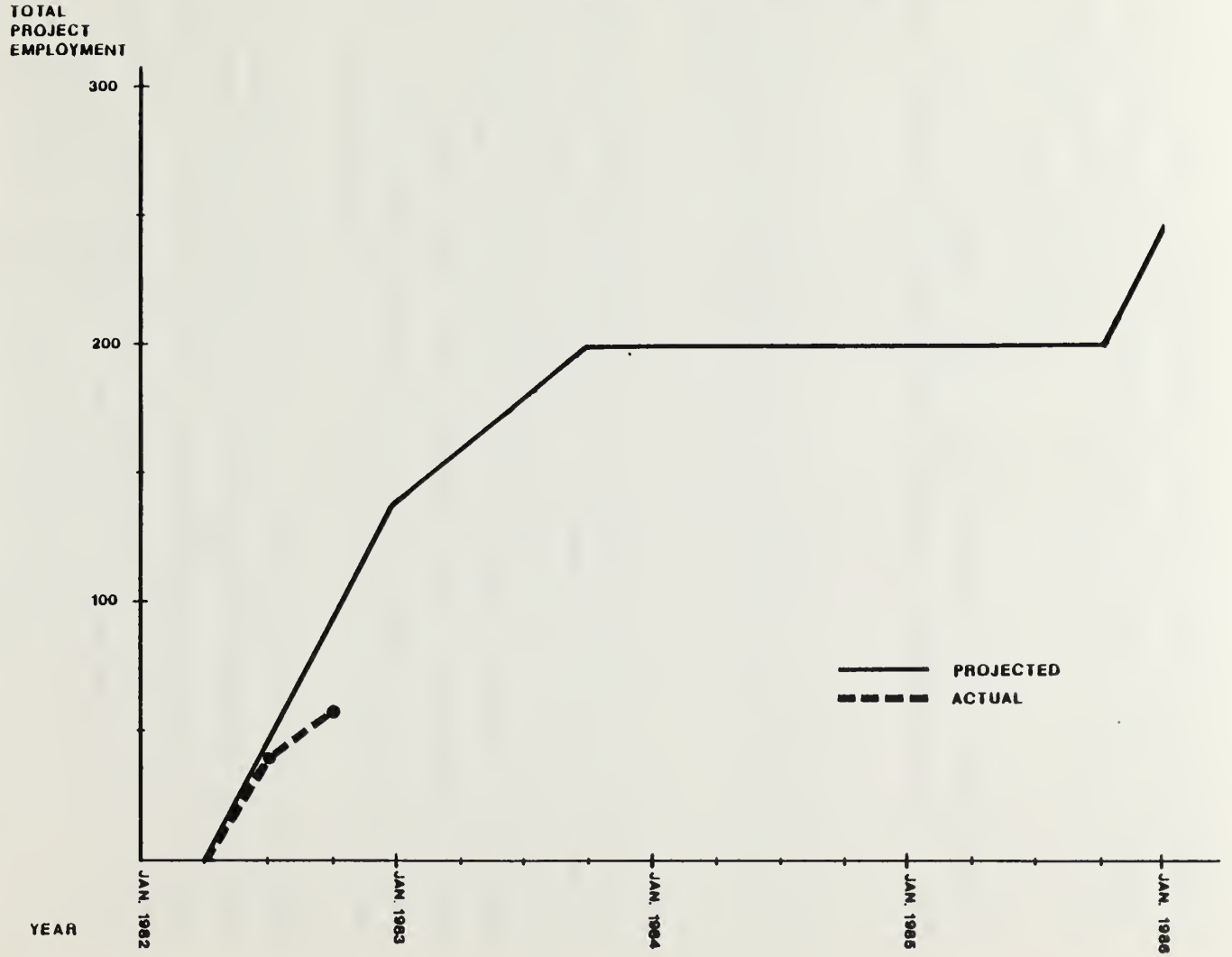


FIG. 5

PROJECTED AND ACTUAL WRSP WORK FORCE JANUARY 1982-DECEMBER 1985



schedule, the work force will need to more than double in size during the next three months.

C. Summary of Work Force Monitoring

Table 1 summarizes the results of a questionnaire compiled for the 57 persons employed on the White River Shale Project in Uintah County as of October 1, 1982. Each person completed the questionnaire at the time he or she began work on the WRSP. These results include the following main points:

General - As expected at this early stage, the majority (86%) of the project's work force is temporary. This percentage is almost unchanged from the quarter ending July 1.

Age - The work force continues to be young. However, the median age of the work force has increased somewhat during the past quarter, from 28 on July 1 to 31 on October 1.

Marital Status - Seventy-four percent of the work force is married. This represents a 16 percent increase from last quarter. However, over half of the married workers--nearly the same percentage as last quarter--do not have their families with them at present. Consequently, married workers now make up a higher proportion of the "single status" work force than they did last quarter (61% now vs. 54% then). In all, about two-thirds of the total workers are "single status" (i.e., are either unmarried or, if married, do not have their families with them).

Residential Location - The proportion of the work force living in the Ashley Valley has dropped somewhat since last quarter as the proportion living on-site has increased (from 19%, up to 25%). Nonetheless, the majority of the work force (61%) still lives in the Ashley Valley area, with most of these reporting Vernal as their place of residence. (The number of respondents that say, "Vernal" to refer to the Ashley Valley in general is not known.)

Eight WRSP workers (14%) report that they reside in Colorado while employed on the project. This is a slight increase over last quarter. Significantly, all of

somewhat more distant town of Rangely, which is in neighboring Rio Blanco County.

Present Housing - Over one-half (54%) of the work force reports recreational vehicles as their present form of housing. This reflects the very temporary status of workers engaged in site preparation and construction of the access road. Single-family houses and mobile homes make up the next largest proportions of the workers' housing, followed by condominiums/apartments. The proportions of each type of housing have changed very little over the last quarter. Condominiums/apartments have become slightly more dominant, and single family homes and mobile homes have declined slightly. Recreational vehicles remain unchanged as a proportion of the workers' housing, holding at 54 percent.

Preferred Housing - Project workers continue to have diverse housing preferences. While the largest percentage would prefer to live in single-family homes (26%), significant proportions also express preferences for recreation vehicles (14%) and mobile homes (12%). A high percentage of the work force (37%) fail to express a preference. Overall, workers' housing preferences show little change from last quarter.

Origin of Work Force/Permanent Residence - Nearly three-fourths of the work force is nonlocal, up from about two-thirds last quarter. Most of the nonlocals come from within Utah, with the strongest representation continuing to come from Sevier County (the home of the largest construction contractor now on the job). (One worker, from western Uintah County, reports living away from home on-site, and thus by definiton is "nonlocal".) In all, nine counties in Utah besides Uintah County are represented, as well as seven other western states. (One-half of the non-Utah workers are from either California or Colorado.) Most of the local work force reports Vernal as their home. However, two come from Naples, one from Jensen, and two from Rangely, Colorado.

Recreation Preference - The work force reports a wide variety of favorite recreation activities. Outdoor activities, especially hunting and fishing, are the most frequent activities reported.

Employees' Children Present - The 57 employees report having a total of 30 children living with them in the area. This means that the ratio of children to work force has decreased somewhat this quarter, from 0.59 children per worker on July 1 down to 0.53 on October 1. This drop seems to be associated with an increasing proportion of WRSP workers who are nonlocal and single status. With a median age continuing at about seven years, many of these children will be too young to impact school enrollments for a few years.

Spouse - Of the 19 workers' spouses living in the area, five are employed, ten are unemployed and not seeking work, and four are unemployed but are seeking work. (This includes spouses of local as well as nonlocal workers.) None of the spouses now in the area whose husbands are new to the project this quarter are employed or seeking employment.

Plans to Move Family to Area - Of the 23 married workers who are now single-status, only four plan to move their families to the area. As a percentage, this is fewer than last quarter (17% now vs. 20% then).

Job Title - The nature of the work now being done on the project is reflected in the types of jobs held. Nearly one-third of the workers (28%) list themselves as equipment operators, and about one-fourth (24%) are laborers. This represents a reversal of last quarter, when laborers dominated with operators in second place. Also represented are truck drivers (7%), supervisors (5%), administrative/security (7%), and "other" (24%).

Travel to Work - Nearly three-fourths of the project workers travel to work in their own cars. About one in six workers carpools, and about one in eight uses a company vehicle or other unspecified mode of travel. These percentages have not changed substantially since last quarter.

Commute to Permanent Home - Of the 41 nonlocal workers, 26 return to their permanent homes on a weekly basis. The other 13 return home less often. The number who return home monthly or less often corresponds very closely with the number who are from out of state, and the number who return home weekly corresponds closely with the number who are Utahns from outside Uintah County.

Table I

WRSP EMPLOYEE MONITORING DATA
SUMMARY
October 1, 1982

	CURRENT QUARTER		PREVIOUS QUARTER		
	Number of Workers	% of Work Force	Number of Workers	% of Work Force	Percent Change Between Quarters
A. GENERAL					
Permanent Employees	8	14	6	15	33
Temporary Employees	49	86	35	85	40
Total Current Employees	57	100%	41	100%	39
Employees Leaving Project This Quarter	0		2		
B. AGE					
18-25	20	35	15	37	33
26-30	8	14	7	17	14
31-35	8	14	5	12	60
36-40	4	7	3	7	33
41-45	8	14	5	12	60
46-50	4	7	2	5	100
51-55	2	4	1	3	100
Over 56	2	4	2	5	0
No Response	1	2	1	3	0
TOTALS	57	101%**	41	101%**	39
Median Age:	31 Yrs.		28 Yrs.		
C. MARITAL STATUS					
Single	15	26	13	32	15
Married	42	74	28	68	50
	57	100%	41	100%	39
Single Status	38	67	28	68	36
D. RESIDENTIAL LOCATION					
On-Site	14	25	8	19	75
Vernal	28	49	24	59	17
Jensen	4	7	2	5	100
Naples	2	3	2	5	0
Maeser	1	2	0	0	*
Rangely	3	5	3	7	0
Dinosaur	5	9	2	5	150
Other	0	0	0	0	0
TOTALS	57	100%	41	100%	39

*Zero in previous quarter — cannot calculate percent change.
**Is not 100% due to rounding

	CURRENT QUARTER		PREVIOUS QUARTER		
	Number of Workers	% of Work Force	Number of Workers	% of Work Force	Percent Change Between Quarters
E. PRESENT HOUSING					
Single Family Home	10	18	8	20	25
Condominium/Apartment	6	10	3	7	100
Mobile Home	10	18	8	20	25
Recreational Vehicle	31	54	22	54	41
Motel/Hotel	0	0	0	0	0
Other	0	0	0	0	0
TOTALS	57	100%	41	101%**	39
F. PREFERRED HOUSING					
Single Family Home	15	26	9	22	67
Condominium/Apartment	3	5	3	8	0
Mobile Home	7	12	5	12	40
Recreational Vehicle	8	14	5	12	60
Construction Camp Modular Housing	2	4	1	2	100
Motel/Hotel	0	0	0	0	0
Other	1	2	1	2	0
No Response	21	37	17	42	24
TOTALS	57	100%	41	100%	39
G. ORIGIN OF WORK FORCE					
Local	16	28	14	37	14
Nonlocal	41	72	27	63	52
	57	100%	41	100%	39
H. PERMANENT RESIDENCE Local Work Force					
Vernal	11	69	10	72	10
Naples	2	12	2	14	0
Jensen	1	6	0	0	*
Rangely	2	12	2	14	0
	16	99%**	14	100%	14

*Zero in previous quarter -- cannot calculate percent change.
**Is not 100% due to rounding

Nonlocal Work Force		CURRENT QUARTER Number of Workers	CURRENT QUARTER % of Non-Local Work Force	PREVIOUS QUARTER Number of Workers	PREVIOUS QUARTER % of Non-Local Work Force	Percent Change Between Quarters
Utah Counties						
Beaver	1	2	1	4	0	
Davis	1	2	0	0	*	
Iron	1	2	0	0	*	
Sanpete	2	5	1	4	100	
Sevier	9	22	8	30	13	
Uintah	1	2	1	4	0	
Utah	3	7	1	4	200	
Washington		4	10	4	15	0
Wayne	1	2	1	4	0	
Weber	1	2	0	0	*	
Arizona	2	5	1	4	100	
California	4	10	3	11	33	
Colorado	4	10	1	4	400	
Idaho	1	2	1	4	0	
Oregon	1	2	1	4	0	
Washington	1	2	0	0	*	
Wyoming	1	2	1	4	0	
No Response		3	7	2	7	50
TOTALS	41	96%**	27	103%**	52	

L. RECREATION PREFERENCES

	Number of Responses (Up to 3 Per Worker)	Number of Responses (Up to 3 Per Worker)
Hunting	33	20
Fishing	33	22
Boating	5	2
Rodeo	1	1
Camping	8	6
Hiking	3	3
Other	42	29

*Zero in previous quarter -- cannot calculate percent change.
**Is not 100% due to rounding

	CURRENT QUARTER		PREVIOUS QUARTER		
J. EMPLOYEES' CHILDREN PRESENT, BY AGE	Number of Children	% of Workers' Children Present	Number of Children	% of Workers' Children Present	Percent Change Between Quarters
0-2 Years	6	20	5	21	20
3-5 Years	6	20	4	17	50
6-11 Years	12	40	10	41	20
12-17 Years	6	20	5	21	20
	30	100%	24	100%	25
Median Age:	7 Yrs.		7 Yrs.		

K. INFORMATION ON SPOUSE	Number of Spouses	% of Spouses	Number of Spouses	% of Spouses	Percent Change Between Quarters
Employed	5	12	5	18	0
Looking For Work	4	9	4	14	0
Not Seeking Employment	10	24	4	14	150
Spouse Not in Area	23	55	15	54	53
	42	100%	28	100%	50

L. PLANS TO MOVE FAMILY TO AREA	Number of Workers	% of Work Force	Number of Workers	% of Work Force	Percent Change Between Quarters
Plan to Move Family	4	10	3	11	33
Don't Plan to Move Family	19	45	12	43	58
Family Already in Area	19	45	13	46	46
	42	100%	28	100%	50

	CURRENT QUARTER		PREVIOUS QUARTER		
	Number of Workers	% of Work Force	Number of Workers	% of Work Force	Percent Change Between Quarters
M. JOB TITLE					
Boilermaker	0	0	0	0	0
Millwright	0	0	0	0	0
Carpenter	0	0	0	0	*
Miner	1	2	0	0	0
Cement Finisher	0	0	0	0	0
Operator	16	28	11	27	45
Electrician	0	0	0	0	0
Painter	0	0	0	0	0
Insulator	0	0	0	0	0
Pipefitter	0	0	0	0	0
Iron Worker	0	0	0	0	0
Supervisor	3	5	2	5	50
Laborer	14	24	12	29	17
Truck Driver	4	7	3	8	33
Maintenance	0	0	0	0	0
Welder	0	0	0	0	0
Administrative/ Security	4	7	2	5	100
Other	14	24	10	24	40
No Response	1	2	1	2	0
TOTAL	57	99%**	41	100%	39
N. TRAVEL TO WORK					
Private Auto	41	72	30	73	37
Car Pool	9	16	6	15	50
Other	7	12	5	12	40
	57	100%	41	100%	39
O. COMMUTE TO PERMANENT HOME					
Daily	18	31	15	34	20
Weekly	26	46	17	42	53
Monthly or Less	13	23	9	24	44
	57	100%	41	100%	39

*Zero in previous quarter -- cannot calculate percent change.
**Is not 100% due to rounding

II. ANALYSIS OF DEMOGRAPHIC AND HOUSING DATA

In addition to the summary information on the work force presented in the preceding section, it is useful to consider several aspects of the WRSP workers, their households, and the changes which have occurred during the past quarter in greater detail. This section of the report presents these more detailed analyses, first those dealing with workers' household characteristics and next those relating to their housing.

A. Marital Status

Part C of Table I noted that three-fourths of the WRSP work force is married. However, that table did not consider differences in marital status between local and nonlocal employees, nor among workers living in the various communities. Tables II and III look at marital status in light of these additional variables.

As Table II illustrates, about two-thirds of the local workers are married and one-third are single. This is virtually unchanged from last quarter. However, as Table III shows, over three-fourths of the nonlocal workers are married - up from two-thirds last quarter. In spite of this increase in married nonlocal workers, the percentage who are single-status is nearly unchanged (78%). This should continue to help minimize the socioeconomic impacts of the WRSP work force. The requirements of the work force for housing, utilities, schools, and other services will continue to be substantially less than if most workers brought families with them.

It is also worthwhile to compare the current places of residence of locals versus nonlocals. The largest percentage of nonlocals (41%) live in Vernal. Another substantial share of the nonlocals (34%) live on-site. Even a sizeable proportion of the nonlocal workers who have their families with them live on-site. Meanwhile, as one might expect, most of the local workers - both singles and marrieds - come from Vernal (69%) or other parts of the Ashley Valley (19%).

B. Spouse Employment

In forecasting the population growth which will occur in order to fill the secondary jobs generated by WRSP, it is helpful to consider the current rate of employment among

Table II

MARITAL STATUS OF LOCAL WORKERS

October 1, 1982

Current Residence	Single Workers	Married Workers, Spouse Living in the Area	Total Work Force
Vernal	4	7	11
Jensen	1	0	1
Naples	0	2	2
Maeser	0	0	0
Rangely	1	1	2
Dinosaur	0	0	0
On-Site	0	0	0
Other	0	0	0
Total Work Force	6	10	16

Table III

MARITAL STATUS OF NONLOCAL WORKERS
October 1, 1982

Current Residence	Single Workers	Married Workers, Spouse Not Living in the Area	Married Workers, Spouse Living in the Area	Total Work Force
Vernal	5	8	4	17
Jensen	1	1	1	3
Naples	0	0	0	0
Maeser	0	0	1	1
Rangely	0	0	1	1
Dinosaur	1	4	0	5
On-Site	2	10	2	14
Other	0	0	0	0
Total Work Force	9	23	9	41

spouses of WRSP workers. This information on second incomes is also important when evaluating the ability of WRSP households to purchase housing and other necessities.

Table IV presents figures on employment of local versus nonlocal spouses. The number of spouses now in the area is small, and therefore the table may have limited value. However, to the extent that they are meaningful, the numbers indicate a greater tendency for locals' spouses to be employed or seeking employment than for nonlocals'. During the past quarter this tendency has become more pronounced. It is probably due to the transitory nature of the nonlocal workers: they may feel they will be in the area too briefly for their spouses to seek employment. In any case, trends in spouse employment will be important to watch as the project continues.

C. WRSP Workers' Children

Table V summarizes data on workers' children who are present in the area. The ratio of children to workers remains essentially unchanged from last quarter. Local workers have a total of 16 children present (an average of 1.0 children for every local worker), while nonlocal workers have 14 children with them (0.3 child for every nonlocal worker). Median age of the local children remains at about eight, while for nonlocal children the median age has dropped slightly to about four.

As was the case last quarter, four out of five local children live in Vernal, compared to almost two in five nonlocal children (up from one in five last quarter). Workers who were present last quarter have not been resurveyed this quarter, so it is unknown how many children who then lived on-site may have moved into towns with the start of the school year. None of the nonlocal children who are new this quarter live on-site. This may be true of the nonlocal children in general, now that school is underway.

Although these figures represent a very early point in project development, they already seem to corroborate WRSOC's expectations: namely, that nonlocal construction workers will bring relatively few children with them and that the nonlocal children will tend to be younger than their local counterparts. The data available on workers who are new this quarter also seems to bear out a third expectation, namely that nonlocal children will tend to concentrate in the Vernal-Ashley Valley area.

Table IV

SPOUSE EMPLOYMENT DATA

October 1, 1982

	Married Local Workers	Married Non-Local Workers	Total Married Workers
Spouses Employed	5	0	5
Spouses Seeking Employment	2	2	4
Spouses Not Seeking Employment	4	6	10
Total Spouses in Area	11	8	19
Spouses Not in Area	0	23	

Table V

WORKERS' CHILDREN PRESENT, BY AGE GROUP
October 1, 1982

Number of Children Present

Current Residence	0-2 Years		3-5 Years		6-11 Years		12-17 Years		Total Children Present	
	Local	Nonlocal	Local	Nonlocal	Local	Nonlocal	Local	Nonlocal	Local	Nonlocal
Vernal	2	2	0	1	6	2	5	0	13	5
Jensen	0	1	0	0	0	0	0	0	0	1
Naples	0	0	0	0	0	0	0	0	0	0
Maeser	0	0	0	0	0	1	0	0	0	1
Rangely	1	0	1	1	1	0	0	0	3	1
Dinosaur	0	0	0	0	0	0	0	0	0	0
On-Site	0	1	0	2	0	2	0	1	0	6
Other	0	0	0	0	0	0	0	0	0	0
No Response	0	0	0	0	0	0	0	0	0	0
Total Children Present	3	4	1	4	7	5	5	1	16	14

D. Workers' Housing

Type of housing differs considerably between local and nonlocal workers (Table VI). Whereas locals predominantly occupy single-family homes and mobile homes, most nonlocals at this point live in recreational vehicles. A few nonlocals also live in mobile homes and condominiums/apartments, but only one occupies a single-family home.

Tables VII and VIII relate housing type and location to number of children present. Most, both locals and nonlocals, seem to be locating in the Ashley Valley. However, with only 30 workers' children now present, it is difficult to identify any strong trends. Such trends may begin to appear in subsequent quarterly reports.

E. Housing Preferences

Table IX compares workers' actual housing in the project area with their preferred type of housing. Although housing preference data has been obtained from only 63% of the workers, there continue to be at least two aspects worth noting. The first is the percentage of workers who prefer their present type of housing over other possible types (see the underlined percentages in Table IX). All single-family home dwellers who express a preference prefer single-family homes. By comparison, only 50% of the condominium/apartment dwellers express a preference for condominiums/apartments (down from 67% last quarter). The satisfaction rate drops to 57% among mobile home dwellers, (versus 67% last quarter), and to 46% among occupants of recreation vehicles who responded (versus 46% last quarter).

Also worth noting in Table IX are the combined housing preferences of all workers who expressed a preference (see the far right column). Overall, WRSP workers prefer single-family homes (42%), followed by recreational vehicles (22%), mobile homes (19%), and condominiums/apartments (8%). Also receiving votes were construction camp modular housing and "other".

F. Residential Location

Tables X and XI show the types of housing occupied by WRSP workers classified according to location. All local workers with single family homes continue to be in

Table VI

HOUSING OF LOCAL VS. NONLOCAL WORKERS
October 1, 1982

Type of Housing	Local Workers	Nonlocal Workers	Total Work Force
Single Family Home	9	1	10
Condominium/Apartment	1	5	6
Mobile Home	6	4	10
Recreational Vehicle	0	31	31
Motel	0	0	0
Other	0	0	0
No Response	0	0	0
Total Work Force	16	41	57

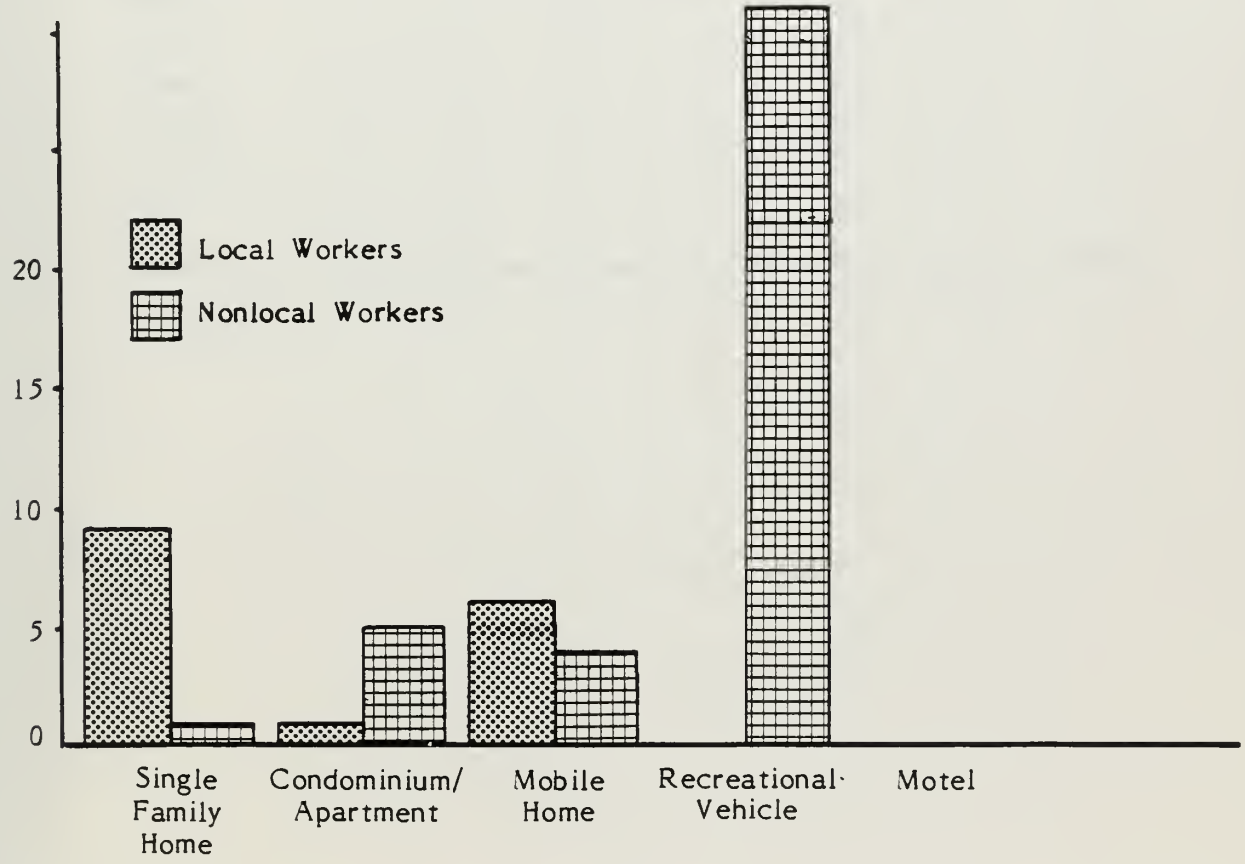


Table VII

HOUSING TYPE VS. NUMBER OF WORKERS' CHILDREN PRESENT
LOCAL WORKERS
October 1, 1982

Current Residence	Single Family Home	Condo-minium/ Apart-ment	Mobile Home	Motel	Recreational Vehicle	Other	Total Local Children Present
Vernal	7	0	6	0	0	0	13
Jensen	0	0	0	0	0	0	0
Naples	0	0	0	0	0	0	0
Maeser	0	0	0	0	0	0	0
Rangely	0	0	3	0	0	0	3
Dinosaur	0	0	0	0	0	0	0
On-Site	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0
No Response	0	0	0	0	0	0	0
Total Local Children Present	7	0	9	0	0	0	16

Table VIII

HOUSING TYPE VS. NUMBER OF WORKERS' CHILDREN PRESENT
NONLOCAL WORKERS
October 1, 1982

Current Residence	Single Family Home	Condo-minium/ Apart-ment	Mobile Home	Motel	Recreational Vehicle	Other	Total Local Children Present
Vernal	0	3	2	0	0	0	5
Jensen	0	0	1	0	0	0	1
Naples	0	0	0	0	0	0	0
Maeser	1	0	0	0	0	0	1
Rangely	0	0	0	0	1	0	1
Dinosaur	0	0	0	0	0	0	0
On-Site	0	0	0	0	6	0	6
Other	0	0	0	0	0	0	0
No Response	0	0	0	0	0	0	0
Total Nonlocal Children Present	1	3	3	0	7	0	14

Table IX

PRESENT VS. PREFERRED HOUSING
October 1, 1982

Present Housing

Preferred Housing	Single Family Home		Condominium/ Apartment		Mobile Home		Recreational Vehicle		Motel		Other		No Response		Total Work Force	
Single Family Home	6	100%	2	50%	3	43%	4	21%	0	0%	0	0%	0	0%	15	42%
Condominium/Apartment	0	0	2	50	0	0	1	5	0	0	0	0	0	0	3	8
Mobile Home	0	0	0	0	4	57	3	16	0	0	0	0	0	0	7	19
Recreational Vehicle	0	0	0	0	0	0	8	42	0	0	0	0	0	0	8	22
Motel	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Construction Camp Modular Housing	0	0	0	0	0	0	2	11	0	0	0	0	0	0	2	6
Other	0	0	0	0	0	0	1	5	0	0	0	0	0	0	1	3
Total Work Force Responding	6	100%	4	100%	7	100%	19	100%	0	100%	0	100%	0	100%	36	100%
No Response	4		2		3		12		0		0		0		21	

Table X

RESIDENCES OF LOCAL WORKERS
October 1, 1982.

Type of Housing	Vernal	Jensen	Naples	Maeser	Rangely	Dinosaur	Other	Total Local Workers
Single Family Home	7	0	2	0	0	0	0	9
Condominium/ Apartment	1	0	0	0	0	0	0	1
Mobile Home	3	1	0	0	2	0	0	6
Recreational Vehicle	0	0	0	0	0	0	0	0
Motel	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0
No Response	0	0	0	0	0	0	0	0
Total Local Workers	11	1	2	0	2	0	0	16

Percent residing in the Ashley Valley: 87%

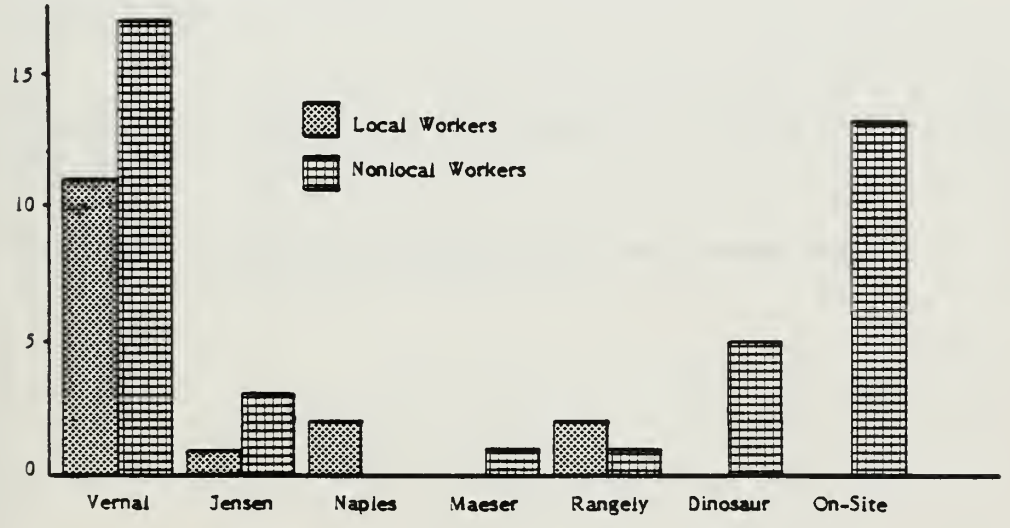


Table XI

RESIDENCES OF NONLOCAL WORKERS
October 1, 1982

Type of Housing	Vernal	Jensen	Naples	Maeser	Rangely	Dinosaur	On-Site	Other	Total Nonlocal Workers
Single Family Home	0	0	0	1	0	0	0	0	1
Condominium/ Apartment	5	0	0	0	0	0	0	0	5
Mobile Home	3	1	0	0	0	0	0	0	4
Recreational Vehicle	9	2	0	0	1	5	14	0	31
Motel	0	0	0	0	0	0	0	0	0
Construction Camp Modular Housing	0	0	0	0	0	0	0	0	0
Other	0	0	0	0	0	0	0	0	0
No Response	0	0	0	0	0	0	0	0	0
Total Nonlocal Workers	17	3	0	1	1	5	14	0	41

Percent residing in the Ashley Valley (excluding workers who live on-site): 78%

the Ashley Valley, primarily Vernal. Nearly all locals with other types of housing are also in Vernal. The few who are in Rangely occupy mobile homes.

Nonlocal workers continue to be somewhat more geographically dispersed than locals. Although the largest share live in Vernal, they are also found in Jensen, Maeser, and both Rangely and Dinosaur, Colorado, as well as on-site. In the Ashley Valley they mostly live in recreational vehicles, although a few also live in mobile homes and an increasing number live in apartments/condominiums. Those nonlocals living in Colorado continue to reside exclusively in recreational vehicles.

G. Future Housing Needs

As already noted, the number of nonlocal workers now on the job who plan to bring their families to the area in the future remains small. However, it is instructive to review their housing preferences as an added glimpse of what future housing needs may be.

Table XII lists the housing preferences of the four WRSP workers who are now single status but plan to bring their families to the area. One of them would prefer a single family home; one, a mobile home; one, a recreational vehicle; and one did not respond. (Of these four, one is now in an apartment and three are in RVs.) No solid conclusions can be drawn from these four survey responses. Nonetheless, it is anticipated that as larger numbers of workers are hired on the project in future months, the analytical value of Table XII in future reports will increase.

H. Concluding Comments

With only 16 new workers having been hired on the White River Shale Project in the past three months, this monitoring report has not offered findings which are radically different from the last report. However, as the project continues to gather momentum, there will be a larger body of worker data to draw upon. This will help to strengthen the value of the cross-tabulations for identifying trends in the work force.

As mentioned previously, the WRSP work force is scheduled to increase in size dramatically during the coming quarter--from the current 57 workers up to about 140 workers by the end of 1982. This growth will have the potential to change the nature of the WRSP work force and, consequently, to alter the character of WRSP's

socioeconomic impact. Whether it actually does so, of course, remains to be seen. In any event, the next quarterly monitoring report should reveal many aspects of WRSP's socioeconomic impact which are likely to prevail for the next few years of project development.

Table XII

HOUSING PREFERENCES OF NONLOCAL WORKERS WHO PLAN TO MOVE FAMILIES TO THE AREA

October 1, 1982

Housing Preferred	Number of Workers
Single Family Home	1
Condominium/Apartment	0
Mobile Home	1
Recreational Vehicle	1
Motel	0
Construction Camp Modular Housing	0
Other	0
No Response	1

Total nonlocal workers planning to move families to the area: 4

Nonlocal workers with families already in the area: 9

Nonlocal married workers not planning to move families to the area: 19

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